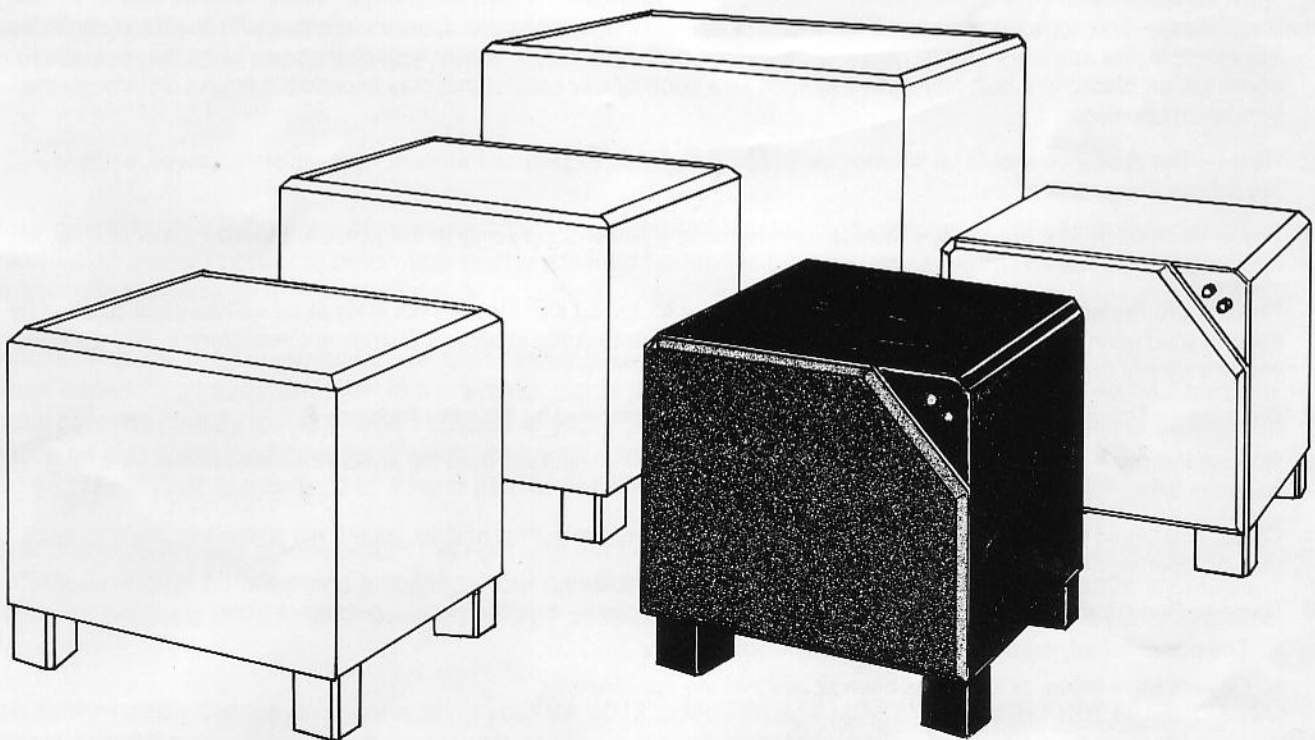


Velodyne

OWNER'S MANUAL

VA 1012

Subwoofer System



SAFETY INSTRUCTIONS



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions — The safety and operating instructions should be retained for future reference.
3. Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions — All operating and use instructions should be followed.
5. Water and Moisture — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances that produce heat.
10. Power Sources — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
12. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
13. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
14. Object and Liquid Entry — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
15. Damage Requiring Service — The appliance should be serviced by qualified service personnel when:
 - a. The power-supply cord or the plug has been damaged; or
 - b. Objects have fallen, or liquid has been spilled into the appliance; or
 - c. The appliance has been exposed to rain; or
 - d. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - e. The appliance has been dropped, or the enclosure damaged.
16. Servicing — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

For Your Records:

Serial Number _____

Date of Purchase _____

Name of Store _____

OWNER'S MANUAL

VELODYNE VA 1012 SUBWOOFER SYSTEM

Congratulations on your purchase of a Velodyne VA 1012 Subwoofer System. This system represents the state of the art in accurate bass reproduction. Read and follow the instructions below to insure safe and proper system operation. Save this manual for future reference.

Warning: To prevent fire or shock hazard, do not expose this equipment to rain or moisture. To avoid electrical shock do not open speaker enclosure or amp chassis cover. Please observe all warnings on the equipment itself. There are no user serviceable parts inside. Please refer all service questions to your authorized Velodyne dealer.

Prior to installation: Please unpack the system carefully. Remove all staples used to seal the carton as they can scratch the cabinet. Please save the carton and all packaging materials for future use. Record the serial number in the space provided above and both locations on the warranty card for future reference.

INSTALLATION

Your new VA 1012 subwoofer system provides for a number of installation options. Read all the installation information below in order to determine which installation option is best for your system. *Remember to perform all installation procedures with system power turned off.*

Inputs. The VA 1012 is equipped with both speaker-level and line-level stereo inputs. Use the LINE IN jacks when connecting your subwoofer to a pre-amp, signal processor, or line-level crossover. The FROM AMPLIFIER jacks connect directly to the speaker outputs of your integrated amplifier or receiver. Your amplifier section will notice no additional loading effects when you use these inputs because of their high impedance.

NOTE: Do not use both LINE IN and FROM AMPLIFIER inputs simultaneously.

Crossover. Both sets of inputs sum the right and left channels together and the resulting signal is passed through a 75Hz crossover before being amplified. Your satellite speakers still operate over their full frequency range, however, because the VA 1012 contains no high pass crossover. An optional high pass crossover is available (see below).

Interconnection Cables. When installing your VA 1012 using FROM AMPLIFIER and TO SPEAKERS (as in Figure 1) run the same quality speaker cable to your subwoofer as you do to your satellites. If the cables to your 1012 will not be feeding your satellites, then any medium gauge "zip cord" is sufficient for the subwoofer alone.

Cables connected to LINE IN should be standard shielded phono cables. Always keep leads between your pre-amp and power amplifier as short as possible. If necessary, cables to the subwoofer unit alone can be quite long.

INSTALLATION OF VA 1012 USING FROM AMPLIFIER INPUTS

Figure 1 shows an easy way to connect your VA 1012 to a receiver or integrated amplifier. You can also connect your satellites directly to your receiver or amplifier along with the subwoofer.

Observe right and left channel designations above terminals. Red terminals are positive, black terminals are negative (common).

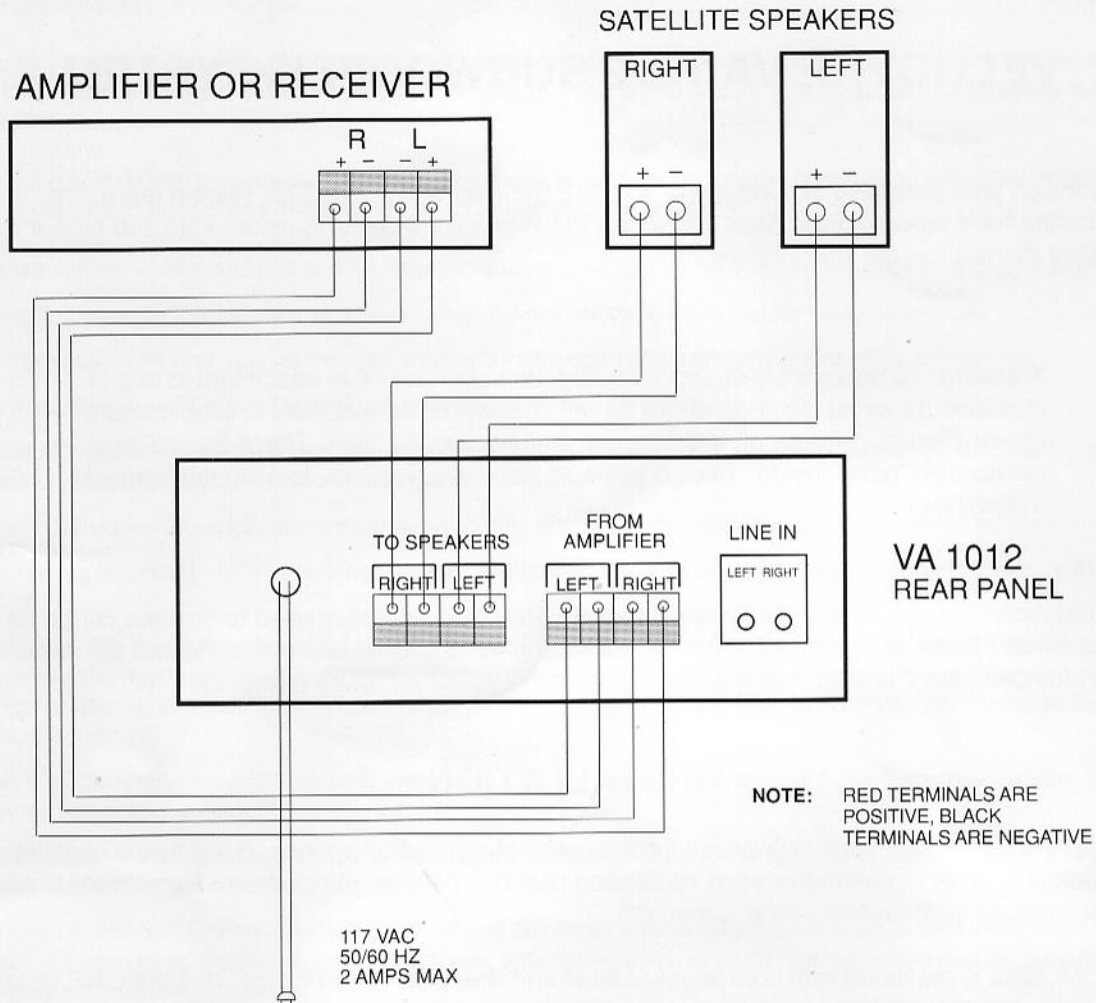


Figure 1: Installation Using FROM AMPLIFIER Inputs

Caution: To avoid damage to your main amplifier be sure to make all speaker connections from RED (positive) to RED and from BLACK (negative) to BLACK. Be sure that all connections are tight, and that there are no loose strands or frayed wires.

INSTALLATION OF VA 1012 USING LINE IN INPUTS

Figure 2 shows connection to a pre-amplifier's main outputs. Use Y-adaptor patch cords if your pre-amp does not have an extra set of main outputs.

Connection to a signal processor or surround sound decoder is similar. If your processor/decoder has a monaural subwoofer output, then run a single phono cable from the subwoofer output to either the right or left LINE IN jack on the VA 1012. Consult your processor/decoder documentation for more information.

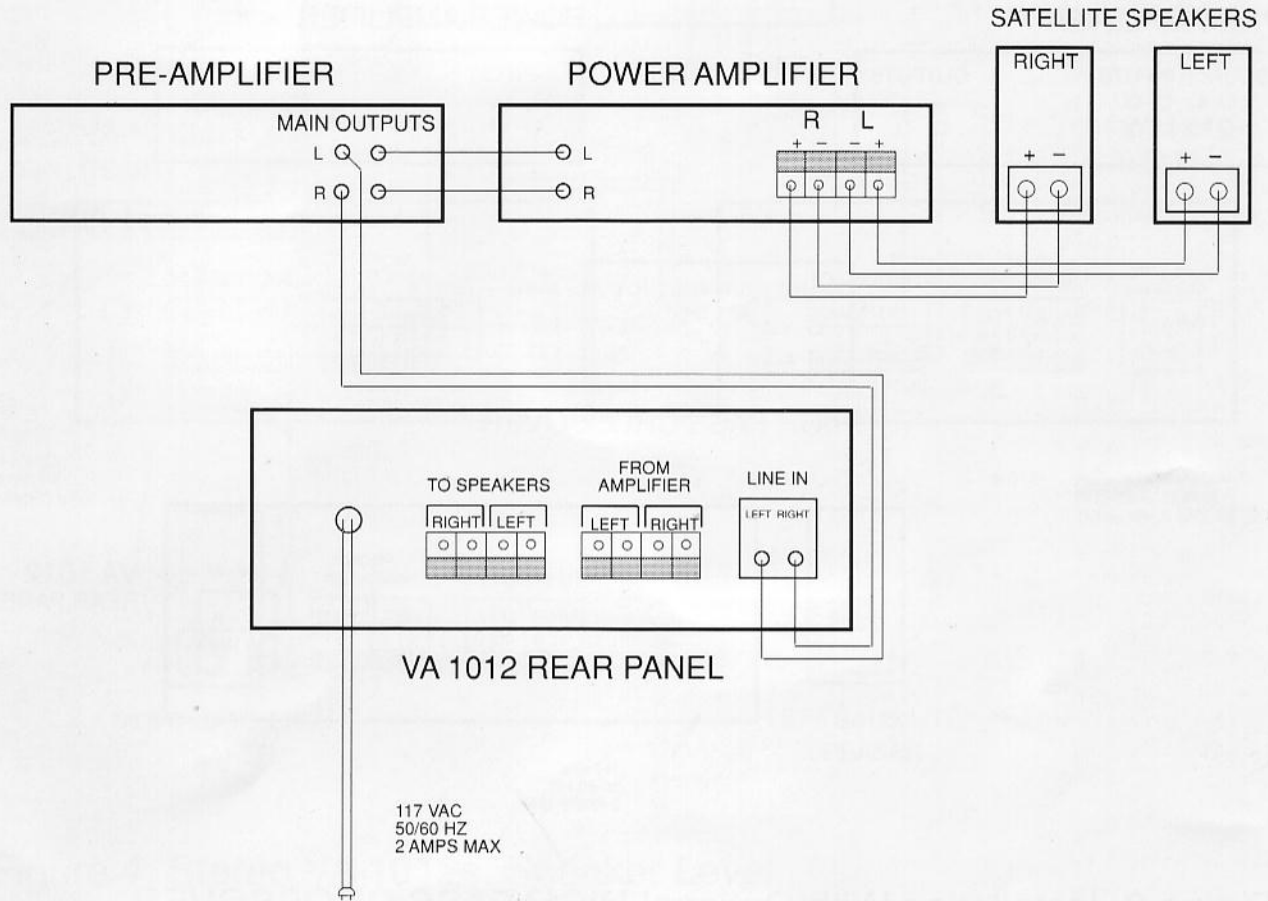


Figure 2: Installation Using LINE IN Inputs

INSTALLATION OF VA 1012 USING EXTERNAL CROSSOVER AND **LINE IN** INPUTS

Velodyne offers an optional high pass crossover unit (part no. 80-111 FIN) for listeners who wish to roll off the low end response of their satellite speakers. The crossover operates only at line level and your system must provide pre-amp outputs and power amp inputs. Refer to Figure 3.

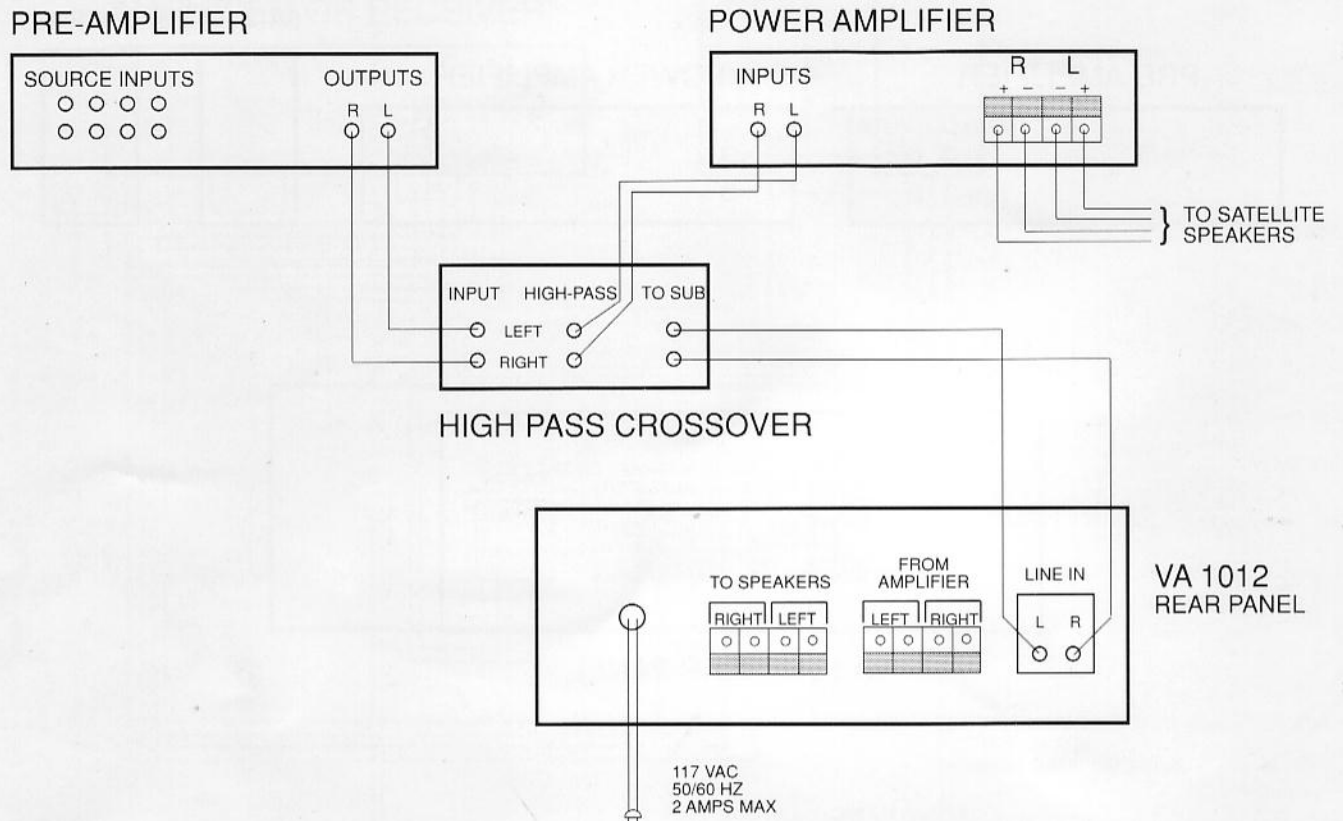


Figure 3: Installation With Optional HIGH PASS CROSSOVER

INSTALLATION OF TWO VA 1012s AS A STEREO PAIR

Although a single VA 1012 will improve the performance of any audio system, many listeners demand the additional power and effect of stereo VA 1012s. Figure 4 shows stereo connection using speaker level inputs. Note that one pair of inputs remain unused on each unit. Stereo connections can also be made with the line level inputs.

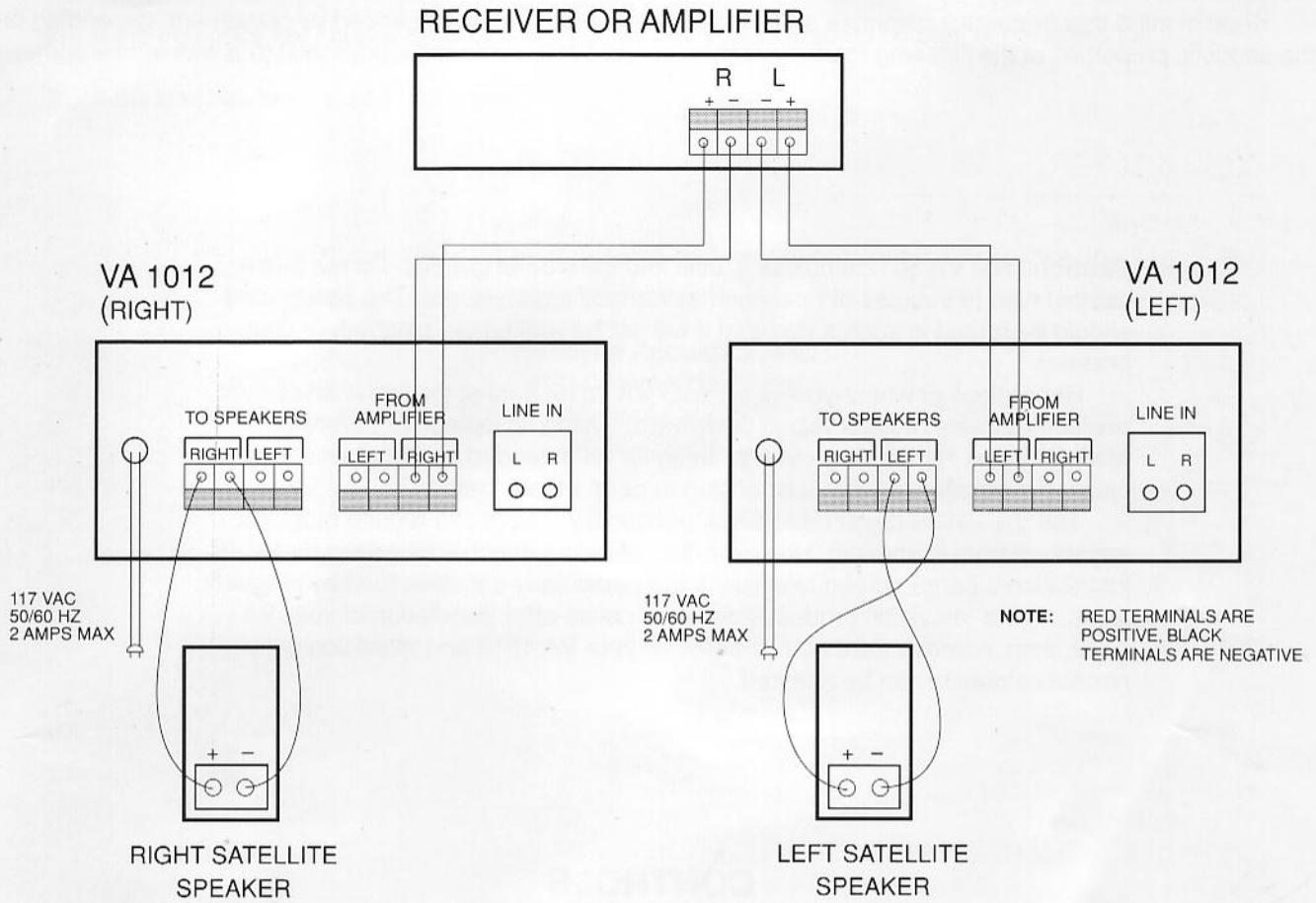


Figure 4: Stereo VA 1012s, Speaker Level

PLACEMENT

The VA 1012 operates primarily at frequencies below 75 Hz. These frequencies are essentially non-directional such that you may place the subwoofer almost anywhere without degrading the stereo imaging characteristics of your main speakers.

When using a pair of VA 1012s in stereo, it is preferable to place each subwoofer adjacent to the satellite of the same channel.

Keep in mind that frequency response and output level can be greatly influenced by placement, depending on the acoustic properties of the listening room. Typically the VA 1012 will sound louder next to a wall or in a corner.

Caution: The VA 1012 amplifier is built into the woofer cabinet. Do not place cabinet next to sources of heat such as furnace registers, etc. The power cord should be routed in such a way that it will not be walked on, pinched, or compressed.

Regardless of where you install your VA 1012, it must remain in an upright position (passive radiator facing downward). Using, shipping, or otherwise storing the VA 1012 in any other position for an extended period of time may cause the passive radiator suspension to permanently deform.

The VA 1012's driver has been magnetically shielded to reduce magnetic emissions from its cabinet. However, this shielding may not be adequate for all installations. Large-screen televisions are particularly sensitive to stray magnetic fields. If your television produces distorted colors after installation of your VA 1012, then increase the distance between your VA 1012 and television until normal coloration can be attained.

CONTROLS

The control panel on the front of your VA 1012 includes a power switch, a power-on indicator lamp, and a level control.

The power switch is a push-on/push-off type and is located in the upper left position of the panel. The green indicator lamp comes on when the VA 1012 is switched on and properly powered.

The subwoofer level control knob (lower right position) is used to adjust the volume level of bass information in relation to the midrange and treble frequencies. We recommend that you begin listening with the level set at the point midway between MAXIMUM (fully clockwise) and MINIMUM (fully counter-clockwise). Play several selections of music and vary the subwoofer level until the bass matches the mids and highs to your satisfaction. Once you set the subwoofer level, you simply use your system's main volume control and the bass proportion will remain consistent.

CARE OF YOUR SUBWOOFER

We recommend using a clean damp cloth for cleaning the cabinet. Never use detergents or abrasives on your VA 1012.

The VA 1012 may be left on continuously without fear of long-term adverse effects. We do recommend that you turn off the unit during extended periods of nonuse.

TROUBLESHOOTING / SERVICE

Before seeking service for your VA 1012, please re-check all systems and power connections. If you determine that your unit requires service, then please contact your local Velodyne dealer.

The following conditions *a/ways* require service by qualified personnel:

- 1) If the power cord is damaged
- 2) If the unit does not appear to operate normally or exhibits a marked change in performance
- 3) If the unit has been exposed to water

VELODYNE and VA 1012 are registered trademarks of Velodyne Acoustics, Inc.

Velodyne Acoustics, Inc.

1070 Commercial Street

San Jose Ca., 95112

(408) 436-0688

VELODYNE VA 1012™

SUBWOOFER SYSTEM SPECIFICATIONS

Amplifier

Type: integrated Class A/B.
Power: 60 watts continuous RMS.
Stereo Input: Line level sensitivity —100 mV /10K nominal
Speaker level sensitivity—1 volt nominal
Frequency Response: 25-75 Hz \pm 3dB

Driver

Active —(Forward firing)

Diameter: 10 inches.
Linear travel: 3/8"
Voice Coil: Copper; 2" Diameter.
Magnet: 40oz.
Cone: Polypropylene.

Passive — (Downward firing)

Diameter: 12 inches.
Resonance: 28Hz.

Crossover

Internal Low Pass: Slope, 6 dB per octave initial,
24 dB per octave ultimate. Non-Adjustable

Cabinet

Finish: Black, Vinyl woodgrain
Dimensions: (H) 16 1/4", (D) 18 1/4".
Weight: 40 lbs.
Grill: Black Knit.

Warranty: 1 year.

Specifications are subject to change without notice.